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Bell Atlantic

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ORIGINAL

March 16, 1999

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Mr. Warren Firschein
Accounting Safeguards Division
Common Carrier Bureau
Federal Communications Commission
2000 L Street, N.W.
Room 257
Washington, DC 20554

Re: **Response to Direct Case and Reply Comments of Bell Atlantic, CC Docket 98-166**

Dear Mr. Firschein:

On behalf of Bell Atlantic, enclosed please find one 3.5 IBM compatible computer diskette containing Bell Atlantic's Response to Direct Case and Reply Comments in the above-referenced matter.

Because of difficulties in converting the mathematical equations of the affidavit into Word Perfect, this filing is provided to you in both Word 6.0/95 and adobe acrobat versions instead of the customary Word Perfect 5.1.

Please call if you have any questions concerning the enclosed materials.

Sincerely,

Enclosures
CC: ITS

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List A B C D E

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Prescribing the Authorized Unitary	)	CC Docket No. 98-166
Rate of Return for Interstate Services of	)	
Local Exchange Carriers	)	

RESPONSE TO DIRECT CASE AND
REPLY COMMENTS OF BELL ATLANTIC[1]

Most parties supported the key showing made by Bell Atlantic in its opening round of comments here: That any reduction in general interest rates has been more than offset by the tremendous growth in financial risk facing regulated local exchange carriers. As a result, their cost of capital should be higher than when it was last set, which was prior to the 1996 Act and its opening of markets to new competition.

In expert testimony attached to these comments and to the response submitted by the USTA, there is confirmation that the actual cost of capital exceeds 11.25 percent by well over 100 basis points. In contrast, GSA's calculation of a cost of capital includes errors that undermine their conclusions. In particular, in conflict with all economic and financial literature, GSA ignores market values in determining the capital structure, and

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[1] The Bell Atlantic telephone companies ("Bell Atlantic") are Bell Atlantic-Delaware, Inc.; Bell Atlantic-Maryland, Inc.; Bell Atlantic-New Jersey, Inc.; Bell Atlantic-Pennsylvania, Inc.; Bell Atlantic-Virginia, Inc.; Bell Atlantic-Washington, D.C., Inc.; Bell Atlantic-West Virginia, Inc.; New York Telephone Company; and New England Telephone and Telegraph Company.

thereby overweights the cost of debt versus the cost of equity. When GSA's errors are corrected, its analysis also supports a cost of capital well above the current benchmark.

Finally, a number of parties attempt to use this proceeding as part of their campaign artificially to force down access charges by arguing for the elimination of the lower formula adjustment mechanism. But as the Commission has explained to these parties and to the Courts, the lower formula adjustment mechanism is a necessary protection against regulatory confiscation.

I. The Cost of Capital For Incumbent Local Exchange Carriers Exceeds 11.25%

As demonstrated in the attached affidavit of Dr. James Vander Weide, the cost of capital for the incumbent local exchange carriers is significantly above the current 11.25% benchmark -- Dr. Vander Weide calculates it in the range of 12.7%-13.2%. This is confirmed by the analysis of Dr. Randall Billingsley (attached to the response comments of the USTA), who calculates the cost of capital between 13.95% and 14.15%. Taken together these analyses confirm the fact that the tremendous upsurge in market and regulatory risk more than offset any reduction in the cost of debt.

GSA calculates a much lower number as a result of a number of fundamental errors. When those errors are corrected, GSA's calculations mirror those of Dr. Vander Weide.

In particular, GSA relies on book valuations of capital rather than market based capital. In contrast to current market value, book value is a backward looking historical accounting measure. As Dr. Vander Weide explains: "[e]conomic and financial theory require that the cost of debt be measured in terms of market interest rates, not embedded costs, and that the capital structure be measured in terms of the market values of debt and

equity, not the book values." Vander Weide Affidavit at ¶ 6. Because accounting rules require reductions in book values when market values fall below historical cost, but do not allow for commensurate increases when market values increase above book values, there is "a natural tendency for book values to understate the market value of both assets and equity by significant margins." *Id.* at ¶ 19. Historical accounting values also are subject to distortions by accounting adjustments that may have no impact on cash flow and should have no impact on the cost of capital. *See* Vander Weide Affidavit at ¶ 20-21 (citing as an example the write-offs of accounting changes for Other Post Employment Benefits (OPEBs), which reduced book value but had no impact on cash flow or market value).

As a result of all of these concerns, book value is at best meaningless, and clearly misleading, if used for financial calculations such as cost of capital valuation. For example, under a book valuation, WinStar would be bankrupt and not worthy of further investment. In the real world, it is a thriving competitor to the local exchange carriers with a market capitalization of approximately $1.7 billion. Vander Weide Affidavit at ¶ 23. The Commission cannot allow similar distortions to undermine its own cost of capital analysis.

The Commission has recognized that relying on a historical discounted cash flow model to set a going forward cost of capital benchmark does not produce "reliable results." *Represcribing the Authorized Rate of Return for Interstate Services of Local Exchange Carriers*, 5 FCC Rcd 7507 at ¶48 (1990). Nevertheless, despite this decision, the Commission has accepted, at least on a "presumptive" basis, a reliance on historical data to value one aspect of that model – the capital structure. *Amendment of Parts 65 and*

69 of the Commission's Rules to Reform the Interstate Rate of Return Represcription and Enforcement Processes, 10 FCC Rcd 6788 (1995) ("1995 Represcription Order").

In reaching this departure in logic, the Commission emphasized the ease of relying on data that it already has collected in its ARMIS reports. But if the data is unsuitable for its purpose, it does not matter how easy it is to obtain.[2] Regardless, the data used for market valuations is readily available from public sources. Capital weights for the large holding companies and for the S&P industrials are included in published financial reports. Indeed, Dr. Vander Weide and Dr. Billingsley make use of such financial information so that no further data collection is needed. *See* Vander Weide Affidavit at ¶ 12 (footnote 3).

GSA also makes other errors that contribute to its understatement of a cost of capital. For example, it relies on a group of Bell regional holding companies as a proxy group for its calculations. Their use violates several basic model assumptions, however. *See* Vander Weide Affidavit at ¶ 7. Due to the current dynamic environment in which the regional holding companies operate, a discounted cash flow analysis based on these companies is not meaningful. In particular, the very basis of the model -- that equity can be valued based on predictable dividend growth -- is inapplicable to the regional holding companies, which are shifting from being considered earnings based stocks (valued on the expected income from dividends) to growth based stocks (valued on the expectations

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[2] In fact, the Commission premised its decision in 1995 on the assumption that substituting ARMIS data for actual market valuations would simplify the calculation "without sacrificing accuracy." *1995 Represcription Order* at ¶120. Because this assumption has been shown to be faulty, see Bell Atlantic Comments at 10-11, the Commission should reject the resulting conclusion.

of growth in the share price). And that growth is expected to be triggered from factors such as mergers that are not reflected in historical performance numbers. Moreover, their volatility is compounded because of the very small sample size. Given the requirements of the model, the Commission should instead rely on the S&P industrials. This larger base is much more stable, yet their risk, on average is similar to the risk of the local exchange carriers. *See* Vander Weide Affidavit at ¶ 36-38.

GSA also fails to weight its average holding company results, and as a result smaller companies have a disproportionate impact on its calculation. *See* Vander Weide Affidavit at ¶ 53.

Finally, while GSA purports to "project" growth, it actually just uses a trend of historical numbers. Given the changes in the market over recent years, this simplistic assumption is particularly misleading. Instead, the Commission should use the best data available – the I/B/E/S consensus of the projections of financial analysts. *See* Vander Weide Affidavit at ¶ 41.

When the errors are adjusted out, GSA's estimate of incumbent local exchange carriers' cost of capital is consistent with the results produced by Dr. Vander Weide (12.7%) and is well above the current benchmark. As a result, GSA's own submission demonstrates that the authorized return actually is too low.

II. The Lower Formula Adjustment Mechanism Must Be Retained

The long distance carriers argue that with the elimination of sharing, the protection against confiscatory rates – the lower formula adjustment – should also be eliminated. But the elimination of sharing provides an excuse, not a justification for the elimination of the lower formula adjustment.

It is long standing law that the Fifth Amendment requires that a utility be permitted to charge a price that will allow it to "maintain its financial integrity, to attract capital, and to compensate its investors for the risk [it has] assumed." *Duquesne Light Co. v. Barasch,* 488 U.S. 299, 310 (1989) (*quoting Fed. Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591, 605 (1944)). Thus, to meet the constitutional floor, "rates must provide not only for a company's costs, but also for a fair return on investment." *Tenoco Oil Co. v. Dept. of Consumer Affairs*, 876 F.2d 1013, 1020 (1st Cir. 1989). Under price cap regulation, however, absent a separate protection, the caps could in some circumstances prevent such recovery. In order to "prevent price cap regulation from becoming confiscatory" the Commission established and retained the lower formula adjustment mechanism. *Price Cap Performance Review*, Fourth Report and Order, 12 FCC Rcd 16642, ¶ 157 (1997).

The elimination of sharing does not change the need for such protection. In fact, this same point has been raised by long distance carriers and refuted by the Commission in the appeal of its order retaining the lower formula adjustment. There the FCC explained that "this 'constitutional necessity of avoiding confiscatory rates' is an 'asymmetrical' one that operates only at the "low end." *USTA v. FCC*, DC Cir. Case No 97-1469, Brief for Respondents at 63 (filed June 15, 1998) (quoting *Time Warner Entertainment Co. v. FCC*, 56 F. 3d 151, 170 (D.C. Cir. 1995)). Indeed, as the FCC pointed out there, the D.C. Circuit has already recognized the reasonableness of "price cap system with a low-end adjustment but no upper earnings cap." *Id.*

This protection is not only legally required, it continues to reflect sound economic policy. The intent of the Commission's price cap regulation is to require annual price

adjustments that reflect the assumed productivity growth of the incumbent local exchange carriers as a group. The lower formula adjustment mechanism is necessary to provide a safety net to carriers that may temporarily fall significantly behind their peers. Because it is temporary and seldom invoked, this important protection comes at little cost in the way of higher rates. Indeed, even if it is never again invoked, the very fact that such downside protection is available is recognized by debt rating agencies and helps control the price cap regulated local exchange carriers' costs. *See* Vander Weide Affidavit at ¶ 78.

MCI attempts to circumvent the need for downside protection by urging the Commission to retain a hollow shell of the current mechanism without any actual safeguard. In particular, MCI has crafted a convoluted formula where low earnings in a given year are viewed as an offset to higher earnings in prior years. This completely undermines the intent of price cap regulation, which was to provide an economic incentive to retain additional profits by being more productive. Under the MCI formula, no good deed goes unpunished, and if the regulated local carriers achieve higher returns in a given year, that allows the Commission to reduce rates well below a confiscatory level in future years. For example MCI's formula produces a current lower formula adjustment trigger level of just over 3 percent, many points below any responsible estimate of the forward looking cost of capital. MCI Comments at 7.

By appropriating past profits for future confiscation, MCI's proposal would violate the very protections that the lower formula adjustment was put in place to address. Moreover, such a policy would be a form of retroactive ratemaking that exceeds the Commission's authority. An action that "impose[s] new duties with respect to

transactions already completed" is impermissibly retroactive. *Landgraf v. USI Film Prods.*, 511 U.S. 244, 262 (1994). That is exactly what MCI proposes here.

MCI also suggests that rather than calculate the lower formula adjustment on an individual carrier basis, it should be calculated on an industry basis. MCI Comments at 10. Thus, while MCI purports to retain a protection, it would not be available unless the entire price cap regulated industry earned less than 3%. While such an economic Armageddon may suit MCI's competitive agenda, it is completely inconsistent with sound regulatory policy.[3] In fact, it is the price cap formula that is intended to set prices that are reasonable for the industry. The lower formula adjustment provides protection for an individual carrier that may not achieve reasonable returns in a given year. By making it generic to the industry, MCI would doom individual carriers that earn below the industry average to economic destruction.

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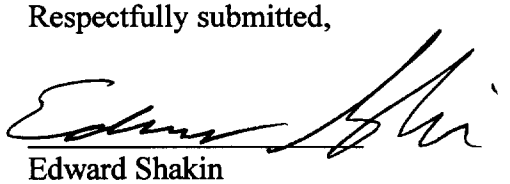
[3] Another party that goes beyond the parameters of this proceeding in an effort to advance its own agenda is New Networks Institute. It argues (in violation of *Louisiana PSC v. FCC*, 476 U.S. 355 (1986) and *Smith v. Illinois Bell*, 282 U.S. 133 (1930)) that the Commission should set *interstate* access rates by taking into account *intrastate* costs and revenues. Such extraneous arguments should not be surprising, considering that among New Network's stated purposes are "taking class action suits" and "filing complaints with Congress, the FCC, and the state regulators against the Baby Bells" Internet at http://suethebells.com/html/the_riot_act.html.

Conclusion

The Commission should either make an upward adjustment to the prescribed cost of capital and the benchmark for lower formula adjustments, or none at all.

Respectfully submitted,



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Of Counsel

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C.

In the Matter of	)	
	)	
Prescribing the Authorized Unitary Rate of Return for Interstate Services of Local Exchange Carriers	)	CC Docket No. 98-166

REPLY AFFIDAVIT OF JAMES H. VANDER WEIDE

March 16, 1999

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Washington, D.C. 20554

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REPLY AFFIDAVIT OF JAMES H. VANDER WEIDE

I. Introduction

1. My name is James H. Vander Weide. I am Research Professor of Finance and Economics at the Fuqua School of Business, Duke University. I am also President of Financial Strategy Associates, a firm that provides financial and economic consulting services primarily to companies in the electric, gas, insurance, telecommunications, and water industries. My business address is 3606 Stoneybrook Drive, Durham, North Carolina.

2. I previously submitted an affidavit in this proceeding on behalf of Bell Atlantic, GTE, and US West on January 19, 1999. My previous affidavit emphasized the need for the Commission to: (1) use current market values rather than historical costs to estimate the cost of debt and capital structure components of the weighted average cost of capital for those local exchange carriers ("ILECs"[1]) still subject to rate of return regulation; (2) send correct economic signals to potential entrants who must choose between leasing access from incumbents and building their own facilities; (3) recognize the significantly increased risks facing ILECs in providing access services; and (4) recognize that a correct estimate of the cost of capital, using

[1] Like the FCC, I use the acronym "ILECs" in this proceeding to refer to those local exchange carriers still subject to rate of return regulation. In more general usage, the acronym "ILECs" refers to all incumbent local exchange carriers, not just to those still subject to rate of return regulation.

market values, a market interest rate, and a market cost of equity, would likely exceed the Commission's currently authorized 11.25 percent rate of return.

3. In the initial round in this proceeding, the General Services Administration ("GSA") filed the Direct Case of the General Services Administration, which recommends a 9.5 percent allowed rate of return for the ILECs. The GSA's recommended allowed rate of return is based on a 7.39 percent estimate of the ILECs' cost of debt, a 10.75 percent estimate of the ILECs' cost of equity, and a capital structure containing 44 percent debt and 56 percent equity. Although the weighted average cost of capital using these data is 9.27 percent, the GSA recommends an overall rate of return of 9.5 percent because they recognize that 9.27 percent is significantly less than recent cost of capital findings of state utility commissions.

4. I have now been asked by Bell Atlantic, GTE, and U S West to review the GSA's Direct Case and to respond to their recommended overall allowed rate of return for the ILECs. As part of my evaluation of the GSA's Direct Case, I will present my own independent estimate of the ILECs' cost of capital. In addition, I will respond to AT&T's recommendation that the Commission should eliminate the low-end adjustment mechanism of price cap regulation.

II. Summary

5. From my review of the GSA's Direct Case, I conclude that the GSA has significantly underestimated the ILECs' weighted average cost of capital. The GSA's underestimate of the ILECs' weighted average cost of capital is caused by: (1) their use of historically-oriented book value estimates, rather than actual market values, of the ILECs' cost of debt and capital structure; (2) their failure to recognize that the RHCs do not satisfy the basic stability assumptions of traditional cost of equity estimation techniques; (3) their use of historical data to estimate the RHCs' future growth; and (4) their gross misunderstanding of the risks the

ILECs' face in providing interstate access service. A summary of my conclusions is contained in the following paragraphs, and a complete discussion of my conclusions is contained in the following sections of this affidavit. On the basis of my own studies, I find that the ILECs' weighted average cost of capital is in the range 12.75 percent to 13.15 percent.

6. Cost of Debt and Capital Structure. The GSA's historical cost, book value definitions of the cost of debt and capital structure components of the ILECs' weighted average cost of capital are inconsistent with the forward-looking economic definition of the weighted average cost of capital. Economic and financial theory require that the cost of debt be measured in terms of market interest rates, not embedded costs, and that the capital structure be measured in terms of the market values of debt and equity, not the book values. Financial practitioners also use market interest rates and market value capital structures to estimate the cost of capital for purposes of entry, investment, and innovation decisions. If the Commission accepts the GSA's incorrect definition of the cost of debt and capital structure, it will send incorrect signals to capital market participants, including potential entrants who will find it less costly to use the ILECs' facilities at artificially low regulated rates than to build their own facilities at market-determined rates. The GSA's definition of the cost of capital would undermine the real economic benefits of competition, which come from facilities-based competition.

7. Proxy Companies. The GSA's proxy group of RHCs fails to satisfy the basic assumption of the DCF Model that companies operate in a stable environment where the companies' business operations and financing and dividend policies remain relatively constant. This stability assumption does not apply to the RHCs. The RHCs operate in an unstable environment where their business operations are being fundamentally transformed by mergers, acquisitions, and strategic investments in new technologies that permit the RHCs to participate in

the converging international market for voice, data, wireless, Internet, and video services. In addition, the RHCs are a poor proxy because of their small sample size, just five companies, and their decision to reduce their dividend payout ratios. The GSA could have avoided the problems of applying the DCF Model to the RHCs by choosing a large group of companies of comparable risk such as the S&P Industrials.

8. Growth. The GSA estimates the growth component of their DCF Model by averaging the five-year Analysts' Consensus Estimate ("ACE") of future earnings per share ("EPS") growth with another growth estimate that they incorrectly characterize as being an analysts' "three-year forecast of earnings per share." [GSA Direct Case at page 9.] In fact, the GSA's three-year growth rate is the RHCs' five-year *historical* growth in EPS. The GSA's use of a five-year historical EPS growth rate is completely inconsistent with the GSA's own statements that the RHCs' five-year historical growth rates have been highly distorted by numerous accounting write-offs and special charges [see GSA Direct Case at page 15]. In addition, the GSA fails to realize that historical growth is necessarily a poor indicator of future growth for companies whose businesses are being fundamentally transformed by competition, deregulation, and rapidly changing technology. The GSA's historical growth rates alone cause the GSA to underestimate the ILECs' cost of equity by 56 basis points.[2]

9. Market Weighting. The GSA estimates the ILECs' cost of equity by calculating an equally-weighted average of their DCF estimates for each of the five RHCs. The GSA's use of an equally-weighted average has a significant effect on their cost of equity estimate because of the considerable disparity in the GSA's DCF results across the RHCs and the disparity in the size of the RHCs. Financial analysts generally use market value weighted average DCF results to

[2] This calculation is based on a simple average, rather than a market-weighted average DCF result, and uses the GSA's stock prices and the ACE long-term growth estimates.

reflect the fact that investors hold more of large companies in their portfolios than small companies. The GSA's use of equal weighting, rather than market value weighting, reduces their cost of equity estimate for the ILECs by an additional 34 basis points. Thus, the GSA's mistaken use of historical growth rates and equal weighting causes the GSA to underestimate the ILECs' cost of equity by at least 90 basis points (34 plus 56).

10. Risk. The GSA continues to hold the outmoded view that access services are offered in a low-risk, near monopoly environment. Nothing could be further from the truth. Access services are among the riskiest of the RHCs' telecommunications services because: (1) a large proportion of the ILECs' access revenues come from a relatively small percentage of their access customers; (2) facilities-based competitive access providers have spent billions of dollars to build facilities which bypass the ILECs' access services; (3) the largest access customers, AT&T and MCI WorldCom, have purchased the largest competitive access providers in order to avoid ILEC access charges; (4) access services have historically been priced above incremental cost in order to recover part of the basic loop costs, and, therefore, the ILECs' competitors, who can structure their rates based on elasticity of demand, can specifically target access services; (5) technological developments are allowing customers to obtain telecommunications service through Internet service providers that are exempt from access charges; and (6) customers are increasingly avoiding access charges through the use of wireless services instead of wireline services.

11. Independent Estimate of the ILECs' Weighted Average Cost of Capital. I estimate the ILECs' overall weighted average cost of capital to be in the range 12.75 percent to 13.15 percent, based on a 6.68 percent market cost of debt, a 14.77 percent cost of equity, and a target market value capital structure containing between 75 percent and 80 percent equity.

III. Cost of Debt and Capital Structure

12. The GSA measures the cost of debt and capital structure components of the ILECs' weighted average cost of capital from ARMIS data[3] on the Regional Bell Operating Companies' ("RBOCs") average embedded cost of debt. The GSA's historical cost, book value approach to estimating the cost of debt and capital structure components of the weighted average cost of capital is inconsistent with the market-oriented methods financial decision makers use to make investment and financing decisions. The GSA's historical cost, book value approach is also inconsistent with financial and economic theory.

13. Financial decision makers use market values to measure the required rate of return and risk on their investments because they make investment and financing decisions on a forward-looking, rather than a backward-looking basis. Homeowners, for example, always measure the equity in their homes in terms of market values because they know they can sell their homes in the market place at market value. Investors measure the risk and return on their investments using market value weights because they purchase stocks and bonds at market prices, not at book values. Corporate financial managers use a market value definition of the cost of capital to make investment and financing decisions because the capital to be invested is always measured at market value.

14. Because capital market participants measure expected return and risk in terms of market values, not book values, the GSA's book value approach to measuring the weighted average cost of capital would send incorrect economic signals to participants in

[3] The Commission recommended use of the ARMIS data in the 1995 Represcription Order, CC Docket 92-133, released April 6, 1995, stating at ¶121, "We adopt this presumptive methodology because...it provides greater promise than any other alternative of furthering our goal of simplifying future represcription proceedings without sacrificing needed accuracy." The market value capital structure data required by financial theory is clearly a more accurate representation of the ILECs' actual capital structures. This data is also readily available to the Commission, and its use would simplify future represcription proceedings even further.

telecommunications markets. In particular, the GSA's book value approach would send incorrect economic signals to competitors who will find it less costly to use the ILECs' at artificially low regulated rates than to build their own facilities at market-determined rates. The true economic benefits of competition in the local exchange come from facilities-based competition. The GSA's book value approach would also send incorrect economic signals to incumbent carriers who must decide whether to introduce new technologies in their networks.

15. The GSA's historical cost, book value approach to estimating the weighted average cost of capital is also inconsistent with financial and economic theory. Financial and economic theory require the use of market interest rates and market value capital structures to estimate the weighted average cost of capital because economists are concerned with decision making on a forward-looking, rather than a backward-looking or historical, basis. In particular: (1) market interest rates are the best measure of the amount firms would have to pay to raise debt capital on a going-forward basis; (2) market values are good approximations of the amounts that could be realized from the sale of the company's debt and equity securities; and (3) market values are the best measures of the amounts of debt and equity investors have invested in the company on a going-forward basis.

16. While economists universally recommend the use of market interest rates and market value capital structures to measure the weighted average cost of capital, they unanimously reject the use of embedded interest costs and book value capital structures. Book values provide highly distorted measures of the amount of equity investors have invested in the firm on a forward-looking basis.[4] Indeed, book values depend on accounting rules that are inherently backward looking, are influenced by one-time write-offs and extraordinary charges

[4] The amount of distortion caused by the use of book values is not as large for the debt component of a company's capital structure as for the equity component.

that have no effect on a company's projected cash flows and cost of capital, and provide for a great deal of managerial discretion.

17. In establishing its accounting rules, the accounting profession has emphasized the importance of correctly reporting the actual results of past performance, rather than reporting either current or prospective values based on the future earnings potential of the firm's investments. Values reported in the balance sheet for shareholders equity represent the residual balances of transactions recorded over many years; and these values characteristically bear little relationship to actual current values. In contrast, decision makers use market values of shareholders equity, because they are more concerned with future performance than past performance.

18. To illustrate the historical emphasis of accounting rules, recall that the book value of a company's equity is equal to the sum of paid in capital and accumulated retained earnings. Paid in capital represents the amount of equity capital the company has raised at then-current stock prices over the life of the company. Accumulated retained earnings are the sum of all earnings not paid out as dividends over all previous years of the company's history. Thus, the book value of the company's equity depends entirely on what has happened in the past rather than on what is expected to happen in the future.

19. The failure of book values to accurately reflect market values is also illustrated by the accounting rule that requires a company to value its assets at the lower of historical cost or market value. If market values rise above historical cost, managers are not allowed to increase the value of assets reported on their financial statements. However, if the market value of assets falls below adjusted historical cost, managers are required to write-down the value of the assets

reported on their books. Thus, there is a natural tendency for book values to understate the market value of both assets and equity by significant margins.

20. An example of how book value capital structures may be distorted by one-time accounting write-offs and extraordinary charges is shown on Schedule 1. During 1993—1995, telecommunications holding companies reduced the value of their equity by at least $28.8 billion as a result of the discontinuation of regulatory accounting principles established in Financial Accounting Standard 71 (FAS 71) and for write-offs for Other Post Employment Benefits (OPEB).[5] These write-offs, which have no impact on the cash flows or market values of these companies, represent more than 52 percent of the total equity in these companies' capital structures. As a result of these write-offs, the telecommunications holding companies' book value capital structures no longer represent the historical proportions of debt and equity financing used by these companies. Since the market value of equity tends to exceed the book value of equity by a significant margin, book value capital structures also fail to reflect the prospective future proportions of debt and equity financing likely to be used by the telecommunications holding companies.

21. Book value capital structures also depend on accounting rules that allow a great deal of managerial discretion. The book value of a company's equity is defined as the sum of paid-in capital and accumulated retained earnings. The company's accumulated retained earnings are highly sensitive to management accounting decisions and estimates regarding the: choice of

[5]The $28.8 billion estimate underestimates the total impact of all one-time write offs because it specifically excludes the enormous impact of OPEB write offs for those companies that took the write offs prior to 1993. Bell Atlantic, Ameritech, BellSouth, NYNEX, US West, and GTE all took large write offs for OPEB prior to 1993.

service lives to be used for depreciation purposes; choice between expensing or capitalizing certain expenditures; choice of time period during which good will, restructuring costs, and the transition obligation for post-retirement benefits will be amortized; choice of the moment in time when asset impairments and future liabilities should be recognized; and choice between treating certain expenditures as period or product expenses. Not surprisingly, many of these decisions and estimates vary widely across firms, even those in the same industry. Moreover, these accounting decisions have no impact on cash flow and no impact on the true underlying cost of capital.

22. The sensitivity of a company's book value capital structure to accounting rules that allow managerial discretion is demonstrated by the previous example I have cited relating to the FAS 71 and OPEB write-offs. While telecommunications holding companies wrote off in excess of 52 percent of the book value of their equity during 1993—1995 to reflect the discontinuation of FAS 71 and the implementation of OPEB, the timing and extent of the write-offs varied by firm. Reasonable managers at each company made different decisions that significantly impacted their company's book value capital structure. Yet none of these decisions affected the company's historical financing patterns or future financing strategies.

23. WinStar Communications, a national provider of local and long distance services, provides an excellent example of why book value capital structures are economically meaningless. WinStar ended 1998 with $1,400 million in long-term debt and negative $165 million in common equity. If investors measured WinStar's capital structure on a book value basis, they would likely conclude that WinStar is bankrupt and that further investment in WinStar would be foolhardy. Yet, WinStar continues to have access to both debt and equity segments of the capital markets. Furthermore, the market continues to value WinStar's shares

favorably. Indeed, the market capitalization of WinStar is approximately $1.7 billion, as opposed to the book value of its equity of negative $165 million. Obviously, investors do not rely on WinStar's book value capital structure in making investment decisions regarding the firm.

24. MCI WorldCom is another example of how historically-based accounting numbers fail to reflect future economic performance. In 1998, MCI WorldCom took a $3.8 billion write off to reflect accounting adjustments made at the time of the MCI WorldCom merger. A large portion of these write-offs included the aggressive expensing of MCI's previously capitalized research and development costs, a merger-related accounting adjustment that is now being questioned by the SEC. Although the $3.8 billion write-off significantly reduced the book value of MCI WorldCom's equity, it had no impact on the market value of MCI WorldCom's stock. Indeed, MCI WorldCom continues to be viewed as one of the telecommunications companies best positioned to succeed in the restructured international telecommunications environment.[6] MCI WorldCom's stock price has increased more than 81 percent since completion of the MCI/WorldCom merger.[7]

25. The GSA's use of an average book value, rather than an average market value capital structure, has a significant impact on their estimate of the ILECs' cost of capital. At year end 1997, the GSA's proxy group of RBOCs had an average book value capital structure containing 44 percent debt and 56 percent equity. At September 30, 1998, the RHCs' average market value capital structure contained 16.8 percent debt and 83.2 percent equity. If the GSA had used the RHCs' average market value capital structure to estimate the ILECs' weighted average cost of capital, its estimate of the ILECs' weighted average cost of capital would have

[6] See, for example, "MCI WorldCom, Inc.," Grubman, J.B., Salomon Smith Barney, October 9, 1998.
[7] The closing stock price on September 15, 1998, the first day after the merger, was $45.50. The closing price on February 26, 1999 (the last day of trading in February) was $82.50.

increased by 91 basis points.[8] The impact of the GSA's use of a book value capital structure would have been even larger if the GSA had correctly estimated the ILECs' cost of equity.[9]

26. While economic theory and practice strongly favor the use of a market value rather than a book value capital structure to measure the weighted average cost of capital, the Commission must still determine whose market value capital structure should be used to measure the ILECs' weighted average cost of capital. In making this decision, the Commission can take comfort in the fact that the average market value capital structures of the RHCs, the local exchange telecommunications firms in the S&P Industrials, the interexchange carriers ("IXCs"), and the S&P Industrials are approximately equal (see Schedule 2). On September 30, 1998, the average market value capital structures of the RHCs, the local exchange companies in the S&P Industrials,[10] and the S&P Industrials themselves contained 83.2 percent equity, 81.6 percent equity, and 82.1 percent equity, respectively. The average market value capital structure of the IXCs, AT&T and MCI WorldCom, contained 87.2 percent equity on September 30, 1998. Thus, a capital structure containing in excess of 80 percent equity is typical of both telecommunications companies and the S&P Industrials.

27. The reasonableness of using a market value capital structure containing more than 80 percent equity, and the unreasonableness of the GSA's book value capital structure containing only 56 percent equity, can also be demonstrated from capital market data typically used to value telecommunications companies. For example, Morgan Stanley values local exchange company

[8] This calculation is based on the GSA's 7.39 percent cost of debt and 10.75 percent cost of equity; of course, the GSA should also have used the market cost of debt rather than the embedded cost of debt and a more reasonable cost of equity capital.

[9] For example, if the GSA had estimated the ILECs' cost of equity to be just 12.5 percent, they would have been forced to conclude that the Commission should ***increase*** the ILECs' allowed rate of return from the currently authorized rate.

[10] RHCs, GTE, and ALLTEL.

assets by calculating the most recent EBITDA[11] and multiplying this value by a factor of 7 or 8. This value represents the market value of the enterprise, and the percent debt in the market value capital structure can be obtained by dividing total debt by the value of the enterprise.[12] I have performed this calculation for three groups of local exchange companies. To be conservative, I have reduced the EBITDA multiple in the calculation by 15 percent. This calculation results in a range of implied market value capital structures for the local exchange companies containing 16 percent to 22 percent debt and 78 percent to 84 percent equity (see Schedule 3).

IV. The GSA's Proxy Group

28. The GSA applies the DCF Model to the five RHCs—Ameritech, Bell Atlantic, BellSouth, SBC, and US West, as a proxy for the ILECs. In choosing the RHCs as proxies for the ILECs, the GSA fails to recognize that the DCF Model will only provide accurate estimates of the ILECs' cost of equity if the proxy companies obey the assumptions of the DCF Model. In particular, the DCF Model requires the assumption that the proxy firms operate in a stable environment where both the firm's business operations and its financing and dividend policies remain relatively constant. In fact, the RHCs operate in an *unstable* environment where their operations are being fundamentally transformed through regulatory restructuring, mergers, acquisitions, and strategic investments in new technologies that allow voice, data, and video services to be offered over the same facilities. In addition, the RHCs are in the process of reducing their dividend payout ratios to retain more capital for reinvestment in their businesses.

29. In response to the rapid changes occurring in telecommunications markets, telecommunications companies have used mergers and acquisitions to reposition themselves for

[11] EBITDA is defined as earnings before interest, taxes, depreciation, and amortization. It is frequently used as a measure of a company's ability to generate cash from its operations.
[12] Morgan Stanley Dean Witter, "Telecommunications Services—Sprint," December 3, 1998, page 3.

success in an international telecommunications market where voice, data, and video services are rapidly converging and where customers prefer to obtain bundled telecommunications services from a single supplier. In the last several years, Bell Atlantic has merged with NYNEX; SBC Communications has merged with Pacific Telesis and SNET; AT&T has merged with Teleport and TCI; and MCI has merged with WorldCom, Brooks Fiber, and MFS. In addition, Bell Atlantic has proposed merging with GTE, SBC has proposed merging with Ameritech, and ALLTEL has proposed merging with Aliant. Investors expect mergers to continue in the telecommunications industry as companies attempt to position themselves to offer a complete bundle of national and international telecommunications services to their customers.

30. Potential mergers of telecommunications companies can have a significant effect on measured DCF results. Although the financial community expects merging companies to achieve significant earnings growth as a result of their mergers, the projected earnings growth associated with the mergers is not reflected in the analysts' growth rates until the merger is completed. However, the expected earnings growth anticipated through the mergers is necessarily included in these companies' stock prices. The use of a stock price that includes anticipated merger-related earnings growth, along with growth rates that cannot include merger-related growth, produces a downwardly-biased DCF estimate of the cost of equity.

31. As evidence that the financial community expects mergers to significantly enhance the earnings growth potential of telecommunications companies, consider Value Line's comments with regard to the Bell Atlantic/NYNEX and SBC/Pacific Telesis mergers. Value Line stated in its April 11, 1997, edition:

> **the merger would probably benefit the shareholders of both companies,** since substantial costs savings will result from the combination. Management at the new Bell Atlantic expects to generate $300 million in first-year savings from the combination of operating systems, administrative functions and a reduction in

> management positions. And significant additional savings may well be generated in each of the subsequent two years. Lastly, the merged entity should be able to pare total capital expenditures by approximately $250-$300 million annually, thanks to economies of scale and the elimination of duplicate operations. **All told, Bell Atlantic's post-merger share earnings will likely be at least 10% higher than our current projections.** [original emphasis]

With respect to the SBC/Pacific Telesis merger, Value Line stated:

> **Significant cost savings are likely to be realized from the deal.** For one, fixed costs will be spread over a much wider revenue base and redundant functions will be eliminated. Additionally, the company should be able to negotiate more favorable prices when it purchases new equipment. [original emphasis]

32. As evidence that the growth enhancing potential of mergers is not included in growth estimates until the mergers have been completed, consider Value Line's January 1997 report on SBC, which states that its "estimates and projections will exclude the effects of the merger until it is completed." After the announcement of the merger, but prior to its completion, Value Line forecasted earnings growth of 12.5 percent for SBC and 2 percent for Pacific Telesis. After the completion of the merger, Value Line noted in its April 1997 issue that its "estimates and projections have been adjusted to reflect the merger." However, Value Line's earnings forecast for SBC remained 12.5 percent. (Value Line dropped its report on Pacific Telesis.) Thus, Value Line forecasted that SBC will maintain its forecasted 12.5 percent growth, even after merging with a slower growth company, because of the "significant cost savings...to be realized from the deal."

33. Although the earnings growth potential of mergers is excluded from the analysts' growth forecasts until the merger is complete, the value of enhanced earnings growth is included in the stock prices the GSA used for Ameritech, Bell Atlantic, and SBC Communications in its studies. There is considerable evidence that stock prices reflect all publicly-available information concerning a company's future prospects. Since investors clearly recognize that Bell Atlantic/GTE and SBC/Ameritech have announced their intention to merge, they certainly

include the enhanced earnings growth prospects of the combined companies in their valuation of the individual companies. Indeed, as Value Line comments with regard to the proposed Bell Atlantic/GTE merger, "Most of the good news already appears to be reflected in the price of these neutrally ranked shares." (Value Line January 8, 1999.)

34. The GSA states on page 24 of its Direct Case that the risks of competition and restructuring are already included in the DCF results of all companies. This statement is incorrect. While it is true that the stock price component of the DCF Model includes investors' views of the risks of competition and restructuring, it is not true that the result obtained from an application of the DCF Model to a telecommunications company includes the risks of competition and restructuring. If the analyst uses growth data that do not capture investors' long-run growth expectations for companies in a competitive, restructured environment, the DCF results will not incorporate the risks of competition and restructuring.

35. In summary, the DCF Model can not be reliably applied to telecommunications companies during this period of radical industry restructuring. When companies are expected to restructure, investors bid up their stock prices in anticipation of the enhanced growth opportunities associated with the restructuring. Financial analysts, however, cannot incorporate the enhanced growth opportunities of the restructuring into their growth forecasts until the restructuring is complete and information is available about future growth prospects. In addition, restructuring often involves a tradeoff between short-run costs and long-run expected growth opportunities. Thus, there is a fundamental mismatch between the information included in the stock price and the information included in the analysts' five-year growth forecasts. This mismatch causes the DCF results for restructuring companies to understate those companies' true costs of equity.

36. The GSA could have avoided the problems associated with applying the DCF Model to companies such as the RHCs and other telecommunications companies that are experiencing radical industry restructuring, profound technological change, and regulatory uncertainty. Rather than applying the DCF Model to a proxy group of just five telecommunications companies, the GSA could have applied this model to a larger proxy group of companies of comparable risk in other industries, such as the S&P Industrials.

37. The S&P Industrials are a natural surrogate for the risks of investing in telecommunications companies such as the RHCs at this time. As telecommunications markets become more competitive, the risk profiles of the RHCs and other telecommunications companies have become similar to the risk profiles of other industrial companies of average risk. Indeed, Standard & Poor's has included the telecommunications companies as part of their industrial group, rather than as part of their utility group, for several years.

38. A clear advantage of using the S&P Industrials as a proxy for the RHCs is that the S&P Industrials as a group are not experiencing the same degree of industry restructuring. As a result, the DCF Model can be more reliably applied to the S&P Industrials than to the telecommunications holding companies at this time. In addition, use of a larger group of companies as a proxy tends to reduce the measurement error associated with the DCF results of individual companies. Furthermore, using the S&P Industrials as a proxy for the RHCs is consistent with the FCC's acceptance of that index as a reasonable proxy for the interstate access cost of equity in CC Docket 90-315. [See Fn. Order, 5 FCC Rcd 7507 at ¶182 (1990).][13]

[13] Since the Commission's Order, Standard & Poor's has changed the name of the S&P 400 to the S&P Industrials.

39. In summary, the GSA's decision to use the RHCs as a risk proxy group for the ILECs has caused them to significantly understate the cost of equity for the ILECs. Although the RHCs have some risk characteristics in common with the ILECs, the GSA fails to recognize that the DCF Model does not provide accurate estimates of the cost of capital for companies such as the RHCs that are experiencing radical restructuring and profound regulatory, organizational, and technological change.

V. The Growth Component of the DCF Model

40. The GSA calculates the growth component of its DCF analysis by averaging the Analysts' Consensus Estimate ("ACE") of long-term growth in earnings per share ("EPS") for the RHCs with a three-year growth rate that the GSA mistakenly asserts is a consensus analysts' growth forecast for the RHCs. The GSA also uses five-year historical dividend growth as an estimate of growth in its DCF analysis, but rejects this forecast because the DCF results are less than the yield on Aaa corporate bonds. All of the GSA's growth rate data are obtained from Standard & Poor's.

41. In assessing investors' expectations of the RHCs' future earnings and dividend growth, the GSA fails to recognize that: (1) its so-called "three-year analysts' growth rate" is actually a five-year historical EPS growth rate, not an analysts' forecasted growth rate; (2) investors use analysts' growth rates, not historical growth rates, to forecast a company's future growth in earnings and dividends per share; (3) the I/B/E/S consensus analysts' forecasts are superior to the ACE forecasts; and (4) historical dividend growth provides no useful information whatsoever for companies that are reducing their dividend payout ratios. I will discuss these criticisms more fully in the following paragraphs.